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Mark D Simpson Esquire
Synnestvedt & Lechner
2600 Aramark Tower 1101 Market Street
Philadelphia, PA 19107-2950

| EXAMINER | |
|---|---|
| GILLIGAN, CHRISTOPHER L | |

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

*Ex parte* DAVID A. SELBY

_____

Appeal 2008-1164
Application 09/628,398
Technology Center 3600

_____

Decided: May 20, 2008

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Before JENNIFER D. BAHR, LINDA E. HORNER, and ANTON W. FETTING, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge*

## DECISION ON APPEAL

## STATEMENT OF CASE

David A. Selby (Appellant) seeks review under 35 U.S.C. § 134 of a final rejection of claims 1-26, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We REVERSE.

The Appellant invented an improvement of yield management for group reservations of perishable commodities such as airline seats, hotel rooms and the like in purchasing and reservation systems (Specification 1:5-8). The invention is implemented by predicting the likelihood of materialization of pending reservations reserved as part of a group booking. This prediction is performed by gathering and storing information about prior reservations attributed to group bookings, details of a current group reservation, and characteristics related to the group coordinator making the group/reservation, and using this information to determine the materialization level of a pending current group reservation (Specification 7:3-10).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added].

> 1. A method, using a processing device, for materialization forecasting with respect to group reservations made by a group coordinator for the potential purchase of a particular perishable commodity, comprising the steps of:
>
> [1] gathering past system-wide reservation information
>
> [1.a] relating to past group reservations
>
> for perishable commodities
>
> that have already perished,

[1.b] said system-wide reservation information including information unrelated to said particular perishable commodity;

[2] gathering current reservation information

relating to a current group reservation

for said particular perishable commodity,

which current group reservation has not yet perished;

[3] comparing

[3.a] said gathered past reservation information unrelated to said particular perishable commodities and

[3.b] said current reservation information, using said processing device;

[4] calculating,

using said processing device,

the materialization level of said current group reservation

based on said comparison; and

[5] outputting a materialization forecast result

for said current group reservation

based on said calculated materialization level.

This appeal arises from the Examiner's final Rejection, mailed October 21, 2004. The Appellant filed an Appeal Brief in support of the appeal on December 19, 2005. An Examiner's Answer to the Appeal Brief was mailed on May 11, 2007.

## PRIOR ART

The Examiner relies upon the following prior art:

| | | |
|---|---|---|
| Jung | US 4,775,936 | Oct. 4, 1988 |
| Bowen | US 5,648,900 | Jul. 15, 1997 |

## REJECTIONS

Claims 1-26 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

Claims 1, 2, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jung.

Claims 3-13 and 16-26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.

## ISSUES

The issues pertinent to this appeal are:

- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1-26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as unpatentable over Jung.
- Whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 3-13 and 16-26 under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.

The pertinent issue turns on whether the negative limitation in step [1.b] of information being "unrelated to said particular perishable commodity" leads to the claim being insolubly ambiguous or contradictory.

PRINCIPLES OF LAW

*Claim Construction*

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater* , 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr*., 367 F.3d 1359, 1369 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily)

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the Specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

*Indefiniteness*

The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.,* 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted). A claim may be invalid for indefiniteness if it is "insolubly ambiguous" and not "amenable to construction." *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). "Thus, the definiteness of claim terms depends on whether those terms can be given any reasonable meaning." *Datamize LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005).

*Obviousness*

A claimed invention is unpatentable if the differences between it and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: "[(1)] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved." 383 U.S. at 17. *See also KSR Int'l v. Teleflex Inc.*, 127 S.Ct. at 1734. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, at 1739.

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 1740.

"For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.*

"Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 1742.

## ANALYSIS

*Claims 1-26 rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.*

The Appellant argues these claims as a group.

Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that claim 1's limitation of being unrelated was a negative limitation, which attempts to define the information in terms of what it is not, rather than what it is. As such, the scope of the claim cannot be ascertained (Answer 4). This identical finding was earlier raised in related application 09/628,400 having substantially similar claims at issue.

As we understand it, the Examiner's difficulty with the scope of the claims stems from the fact that the term "unrelated," ordinarily understood

to mean not "connected or associated, as by origin or kind" (*Webster's New World Dictionary* 1198 (David B. Guralnik ed., 2nd Coll. Ed., Simon & Schuster, Inc. 1984)), is a relative or subjective term. In other words, strictly speaking, a relationship of some type can be found between any two people, things, or topics. Consequently, depending on the remoteness of such relationships, some might consider two such people, things, or topics to be related while others might consider those same two people, things, or topics to be unrelated. In a case such as this, we must determine whether Appellant's Specification supplies some standard for measuring the scope of the phrase "information unrelated to said particular perishable commodity" as used in Appellant's claims. *See Datamize*, 417 F.3d at 1351.

Appellant's Specification does not expressly define the term "unrelated" in the context of "information unrelated to said particular perishable commodity." In fact, Appellant's Specification does not use this terminology outside of the claims. Appellant's Specification does teach, however,

> in contrast to the prior art systems, which simply compares the past booking history of, e.g., group coordinator David S. of Timster Tours, the present invention examines *all* reservations, group or otherwise, and locates those which have similar characteristics to those of the current group reservation, not only those made by David S. of Timster Tours.
>
> As an example, assume that the group reservations made by David S. over the past two years have an average materialization level of 60%. Assume further that the current group reservation request from David S. being processed by current reservation processor 316 is for a group of 150

> people for a non-stop, Philadelphia-to-London flight; the purpose of the trip is for a corporate business retreat; the group reservation is being made 9 months before the perishing date of the flight; a 50% non-refundable down payment is being made to hold the reservations; and the group reservation is being made by direct contact between the group coordinator and the airline. Using the present invention, the data warehouse 300 is [sic] can search for *all* previous reservations having the same attributes, and the materialization level for *all* past reservations that have the same attributes is evaluated. The past reservations that are analyzed may be individual bookings having characteristics similar to the bookings of the current group reservation request, or the analysis can be limited to past group bookings having similar characteristics. Based on this information, if it is determined that reservations having these attributes have a 98 % materialization rate, this factor is applied to the current reservation, using the yield management system 314 in a well-known manner.
>
> Using the prior art method which would look only at the past overall performance of David S., the airline would assume that only 60% or 72 of the 150 reservations, would actually materialize, and the yield management system 314 would allow overbooking of the flight accordingly. Using the present invention, however, the airline would assume that for *this* particular group booking by David S., 98 %, or 147 of the 150 reservations, would actually materialize, and the overbooking for this particular flight would be considerably less than if the prior art methods were used.

(Specification 17:9 to 18:17) (emphasis in original).

From this disclosure it is possible to glean what Appellant means by "information unrelated to said particular perishable commodity." Specifically, reservation information for a commodity that is *not* the particular perishable commodity for which the potential purchase materialization forecasting is being conducted is unrelated to said particular perishable commodity. Any reservation information for the particular perishable commodity for which the potential purchase materialization forecasting is being conducted is related to said particular perishable commodity.

In the particular embodiment described in Appellant's Specification, the materialization rate for group coordinator David S. of Timster Tours is being calculated. Thus, the "particular perishable commodity" is any reservation by group coordinator David S. of Timster Tours. In making the calculation, Appellant's described system and method compares the past booking or reservation history of all reservations, not just those of group coordinator David S. of Timster Tours, and compares it to the current reservation information. The past reservation information gathered and used for comparison thus includes reservation information for commodities that are not the reservation by group coordinator David S. of Timster Tours, the "particular perishable commodity" at issue.

In the example presented by the Examiner (Ans. 7-8), two separate flights or flight segments between the same cities may be reasonably considered "unrelated to said particular perishable commodity," as used by Appellant, only if it is the materialization rate for the potential purchase of a particular flight, as opposed to any flight between those cities, that is being forecast. If, on the other hand, the potential purchase materialization rate for

any flight between those cities is being forecast, reservation information for every flight between those cities is related to the "particular perishable commodity."

In light of the above, we conclude Appellant's Specification does supply a standard for measuring the scope of the term "unrelated" and, more particularly, of the phrase "information unrelated to said particular perishable commodity," as used in Appellant's claims. The claims, therefore, are "amenable to construction" and not "insolubly ambiguous."

The Appellant has shown that the Examiner erred in rejecting claims 1-26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention.

*Claims 1, 2, 14, and 15 rejected under 35 U.S.C. § 103(a) as unpatentable over Jung.*

The Appellant argues these claims as a group.

Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

The Examiner found that Jung described all of the limitations except for outputting materialization, but that the skilled artisan would have found it an obvious modification to Jung's method to output this level with the motivation of quickly adjusting computer overbooking levels based on calculations (Answer 5-8).

The Appellant contends that Jung relies on data for the actual flight, which fails to meet the claim limitation of information unrelated to the perishable commodity (Br. 10-11). This identical contention was earlier

raised in related application 09/628,400 having substantially similar claims at issue.

The Examiner's findings are predicated on the Examiner's flawed determination that Jung discloses comparing the gathered system-wide reservation information unrelated to said particular perishable commodity and the current reservation information (Ans. 7-8). Jung's overbooking system outputs demand-based, oversale-based, and prediction-based booking levels for each flight for which a calculation is made (col. 5, ll. 1-45). The "particular perishable commodity" in Jung's system is thus any seat on a particular flight. Jung's system includes a main data base that stores system-wide historical information for flights for all passenger airplanes within the fleet (col. 3, ll. 28-48), thus satisfying the "gathering past system-wide reservation information . . . . , said system-wide past reservation information including information unrelated to said particular perishable commodity" step of claim 1 and the "first subprocesses" recitation in claim 14. In computing the booking level for each flight, however, Jung's overbooking program 42 only uses information for that flight, not information for other flights (col. 5, l. 46 to col. 6, l. 68). Jung's overbooking system, therefore, does not compare gathered past system-wide information unrelated to said particular perishable commodity and current reservation information, as called for in claims 1 and 14, and claims 2 and 15 depending therefrom.

The Appellant has not sustained its burden of showing that the Examiner erred in rejecting claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as unpatentable over Jung.

*Claims 3-13 and 16-26 rejected under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.*

The Examiner does not rely on or point to any teaching in Bowen that makes up for the deficiency of Jung discussed above. The Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 3-13 and 16-26 under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen.

## CONCLUSIONS OF LAW

The Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 1-26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention, and under 35 U.S.C. § 103(a) as unpatentable over the prior art.

## DECISION

To summarize, our decision is as follows:

- The rejection of claims 1-26 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention is not sustained.
- The rejection of claims 1, 2, 14, and 15 under 35 U.S.C. § 103(a) as unpatentable over Jung is not sustained.
- The rejection of claims 3-13 and 16-26 under 35 U.S.C. § 103(a) as unpatentable over Jung and Bowen is not sustained.

REVERSED

vsh

MARK D SIMPSON ESQUIRE
SYNNESTVEDT & LECHNER
2600 ARAMARK TOWER
1101 MARKET STREET
PHILADELPHIA PA 19107-2950